## NATIONAL TRANSPORTATION SAFETY BOARD

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IN RE:

THE EL FARO INCIDENT OFF THE: NTSB Accident No.

COAST OF THE BAHAMAS ON : DCA16MM001

OCTOBER 1, 2015

:

INTERVIEW OF: JAMIE D'ADDIECO, SURVEYOR

Saturday,

October 10, 2015

Jacksonville, Florida

## **BEFORE**

TOM ROTH-ROFFY, Investigator-in-charge, NTSB
MIKE KUCHARSKI, NTSB
BRIAN YOUNG, NTSB
JIM FISKER-ANDERSEN, TOTE Services
ERIK GARZA, ESQ., ABS
MIKE MILLAR, ABS
LOUIS O'DONNELL, ABS
U.S. Coast Guard

KEVIN STITH, TOTE Services

U.S. Coast Guard

This transcript was produced from audio provided by the National Transportation Safety Board.

### P-R-O-C-E-E-D-I-N-G-S

2:30.p.m.

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MR. YOUNG: Good afternoon. It's 1430 on Saturday, October 10th. This is Brian Young, the Engineering Group Chairman for the NTSB. We're interviewing ABS Surveyor Jamie D'Addieco.

Before we start, the purpose of this investigation is to increase safety. We're not here to assign fault or liability.

A transcript or summary of this interview will go into the public docket and will be made available to you. You can have one representative of your choice here. As discussed before, the representative may not testify for the Interviewee and your comments and objections should be limited and not grounds for us to ask questions.

Again, my name is Brian Young. I'm an NTSB Investigator. We are here to investigate the El Faro incident. We are in the fact-finding phase of our investigation. The NTSB has no regulatory enforcement powers but we are an independent Federal agency charged with determining the probably cause of marine accidents and promoting transportation safety. We are not part of the Coast Guard. We're not part of the DoT.

The other members in the room are different

parties for the investigation. The Engineering Group 1 2 party is made up of four individuals myself, Lou 3 representing the ABS, Mike representing the Coast Guard and Jim representing the company of TOTE. 4 5 We also have others from different parties 6 We have the Nautical Group which is Mike and Captain Stith and Matt from the Coast Guard and Mike 7 from Nautical as well. And our Investigator-in-Charge 8 9 is Tom back there. He's in charge of the NTSB side of the entire investigation. 10 11 Again, we are here to find some facts. 12 there is anything we ask that you don't understand, 13 please let us know. We'll have it reworded or repeated 14

Ιf and if you realize you've misstated or want to modify a previous answer that's fine to do, just let us know.

This interview will be recorded for accuracy so that we don't miss anything you say. So, is that good with you with having it recorded?

MS. D'ADDIECO: Yes.

MR. YOUNG: Good. Okay. We'll officially start. My name is Brian Young and I'm the Group Chairman of the NTSB.

MR. O'DONNELL: Louis O'Donnell, Chief Surveyor, part of the Engineering Group.

with the Coast

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1	Guard and part of the Operations Group.				
2	part of the Engineering				
3	Group.				
4	MR. STITH: Kevin Stith with TOTE Services,				
5	part of the Operations Group.				
6	MR. KUCHARSKI: Mike Kucharski, NTSB, Group				
7	Chairman, Operations.				
8	MR. ROTH-ROFFY: Tom Roth-Roffy,				
9	Investigator-in-Charge, NTSB.				
10	MR. MILLAR: Mike Millar, ABS, with the				
11	Operations Group.				
12	MR. FISKER-ANDERSEN: Jim Fisker-Andersen,				
13	TOTE Services with the Engineering Group.				
14	MR. GARZA: Erik Garza, Associate General				
15	Counsel, ABS.				
16	MS. D'ADDIECO: Jamie D'Addieco, ABS.				
17	MR. YOUNG: And if you could for the record,				
18	spell your name so we can all insure it's proper in				
19	our				
20	MS. D'ADDIECO: Jamie, J-A-M-I-E. Last name				
21	is D'Addieco, D' - A-D-D-I-E-C as in Charlie -O as in				
22	Oscar.				
23	APPELLANT USHER: Thank you. Thank you being				
24	here today.				
25	If we could just start the interview off				

with maybe you can share with us your maritime 1 2 training, any industry experience you had and how 3 you've become an ABS surveyor and any training you've 4 had as a surveyor. 5 MS. D'ADDIECO: I graduated from 6 Massachusetts Maritime Academy with a Bachelor of 7 Science in Marine Engineering as well as a Bachelor of Science in Facilities Environmental Engineering. 8 9 was in 2007. Joined ABS August of 2007 working in the 10 Ship Engineering Department as a Review Engineer for 11 Piping Systems and Equipment. 12 Left Engineering and went over to the Survey 13 side in September of 2008 in Tampa. In Tampa we do a 14 lot of repair due to construction. We also have new 15 construction there as well. Left Tampa in July of 2014 and I started in 16 17 Jacksonville. Transferred from Tampa to Jacksonville 18 July 2015. 19 MR. YOUNG: Still within the same group of 20 Survey? 21 MS. D'ADDIECO: Yes. MR. YOUNG: Okay. And as an ABS Surveyor 22 23 what sort of training have you had to back up your 24 current employment? MS. D'ADDIECO: They sent us through 25

New Hire Orientation, Phase I training as well a New
Hire Orientation, Phase III training. During New Hire
Orientation Phase I as a Surveyor they have you go
through classes for welding, nondestructive examination
and confined space entry.

After that you go back and gain experience
in the field. So, you go with other surveyors that
will train you to do the surveys that you have been

MR. YOUNG: Start going around the room. Any training, experience, questions?

UNIDENTIFIED PERSON: No further questions.

UNIDENTIFIED PERSON: No questions.

MR. YOUNG: Okay. Now, we're getting into why you're here.

As we understand it you have done a few surveys aboard the El Faro here in Jacksonville. And what I'm going to ask you to do is go through your surveys which are printed out in front of you and maybe go through line for line some of the items you

requested to do.

inspected or surveyed and as you go through we might 1 2 stop you and ask you for further details if you can 3 remember. But if you give us the date of the survey visit and then just kind of list some of the machinery 4 5 you surveyed. And are all of these limited to 6 machinery surveys that you performed? 7 MS. D'ADDIECO: No. MR. YOUNG: No. 8 9 MS. D'ADDIECO: During our repair surveys 10 there was one that was part of an annual hull survey. 11 MR. YOUNG: Okay. Maybe you can start in 12 chronological, whatever, start with the oldest and work 13 your way. MS. D'ADDIECO: Okay. The first attendance 14 15 was January 27th. We were requested to attend for 16 examination of the Number One port and starboard valve 17 change due to the coating condition being poor for the 18 annual hull survey. 19 MR. YOUNG: And was that in this year 2015? 20 MS. D'ADDIECO: Yes. These are all this 21 year. 22 MR. YOUNG: Okay. 23 MS. D'ADDIECO: So, the internal examination 24 of the two ballast tanks started off with the number 25 one starboard in the forward manhole and worked our way

zig-zagging through the tank to get aft.

The coating condition was still indicated as poor after we examined that tank. They did no -- they didn't do anything to upgrade it at the time.

The port side we started aft and worked our way forward. During the internal examination of the port tank noticed two frames that were detached at the tank \*\* (3:54:05). And this was frame 50 and 51. The \*\* (3:54:11) on both the forward and after side of the frame connection to the tank top had fractured leaving it detached. Left them with the outstanding recommendation for repair at the special periodical survey which have a due date of 26 February 2016.

I didn't suggest any temporary repairs at the time since they were on the side shell you had a rat hole where the frame connected to the side shell of the tank top. Going inboard you have a longitudinal seam on the tank top that had a half moon so the fractured welds were located between the two and they were all the way through. So, it couldn't propagate any further.

Also left that tank in poor coating condition.

That's the end of that report.

25 MR. YOUNG: Any questions on that survey?

with the Coast				
Guard.				
Was that the purpose that you went there was				
due to the poor coatings or were you				
MS. D'ADDIECO: So, for annual hull surveys				
there's certain requirements for examination of valve				
tanks depending on the coating condition and the age of				
the vessel. If these are listed in poor condition they				
get examined every annual hull survey.				
And what causes them to be				
listed in poor condition?				
MS. D'ADDIECO: When you go through the				
internal and there's a breakdown in coating, depending				
on a certain percentage of breakdown coating will				
determine whether we list it as fair or poor.				
And so at what point was this				
one listed first listed as poor?				
MS. D'ADDIECO: I'm not going to have that on				
hand.				
But it would have been kind of				
a continuous thing so it causes additional frequency in				
inspection?				
MS. D'ADDIECO: Yes. So, whenever it gets				
identified, even if it gets identified as fair,				
depending on the age of the vessel we'll examine it.				

So, I think that's a little over 15 years old. 1 2 Okay. 3 MS. D'ADDIECO: If it's a fair coating it can go back in those tanks. If the coating condition gets 4 5 downgraded to poor we go into those tanks regardless of 6 the age of the vessel every annual survey. 7 Okay. And you said you didn't require it to be recoated. What would cause you to --8 9 MS. D'ADDIECO: We cannot -- we cannot tell a client to recoat the ballast tanks. 10 11 Okay. 12 MS. D'ADDIECO: That's at their discretion. 13 Got you. 14 MS. D'ADDIECO: We can only go in and report 15 what we see. So, if we see something that's downgraded 16 for the coating and we downgrade it to what we think it 17 should be at the time. 18 I see. 19 MS. D'ADDIECO: They cannot improve the coating condition unless they do some sort of blasting 20 21 and recoating. They have to do that to a recognized 22 standard. 23 Thank you. Okay. 24 MS. D'ADDIECO: No problem. 25 with the U.S. Coast

Guard. 1 2 Now, the coating condition and the plate 3 condition are two separate things? MS. D'ADDIECO: Say that again. 4 5 Their coating condition --6 MS. D'ADDIECO: Yes. 7 -- that's being rated as 4 and the plate condition, the steel condition, are two 8 9 separate things? 10 MS. D'ADDIECO: Yes. 11 Okay. So, what was the condition 12 of the steel in those, do you recall? Were they 13 wasting a lot? Was it in good condition? Fair condition? What would you -- what was your observation 14 15 inside the ballast tank? 16 MS. D'ADDIECO: I didn't call for any gaging 17 on the internal structure or on the shelf rating. 18 Nothing in there to me indicated that it should be 19 gaged. I didn't see anything for pitting, for corrosion that would have made me believe that it was -20 21 - that it needed to be gaged at the time. 22 So, going through the tank I didn't see 23 anything that would require gaging. I mean, if that 24 answers your question. 25 Yes, it does. Absolutely.

1	So, the cracks in the frame were they in the					
2	frames or in the side shelving of the weld?					
3	MS. D'ADDIECO: The weld was actually					
4	fractured.					
5	The weld that attaches the					
6	MS. D'ADDIECO: Yes. A fillet weld that					
7	attaches the frame to the tank top. And those were					
8	both fractured on the aft side as well as the forward					
9	side.					
10	That's the ** (3:58:16) had no					
11	cracks in it.					
12	MS. D'ADDIECO: No, just the fillet weld.					
13	Thank you very much.					
14	MS. D'ADDIECO: No problem.					
15	UNIDENTIFIED PERSON: No questions.					
16	MR. KUCHARSKI: Mike Kucharski.					
17	Was this tank part of the 20 percent					
18	continuous survey type thing or how does that work?					
19	MS. D'ADDIECO: No. No matter the continuous					
20	salt survey if the coating condition the coating					
21	condition determines whether we look at that tank every					
22	annual.					
23	Now, continuous hull is completely separate.					
24	If it was at the same time that they were required to					
25	do a continuous hull would not credit that tank					
25	do a continuous hull would not credit that tank					

regardless because they got to do a repair on that. 1 2 But coating conditions determine whether we look at the 3 tank every year at the annual hull survey. MR. KUCHARSKI: And what is that tank? 4 5 you walk all the tanks -- all the ballast tanks? 6 MS. D'ADDIECO: The ones that are indicated 7 as poor or fair depending on the age of the vessel. 8 MR. KUCHARSKI: Thank you. 9 MR. ROTH-ROFFY: Tom Roth-Roffy, NTSB. 10 Do you know how many of these ship ballast 11 tanks were repaired or classified as either poor or 12 fair? 13 MS. D'ADDIECO: I'd have to look at the 14 status -- the survey status to determine that. 15 they are listed in the survey status for the condition of the ballast tank. 16 17 MR. ROTH-ROFFY: Regarding the steel 18 condition you said there is criteria for rating that 19 condition. Can you describe in more detail what the 20 ABS criteria is for rating of --MS. D'ADDIECO: We wouldn't rate the steel. 21 22 When we're doing our visual examination of the 23 structure if anything to us seems suspect then we can 24 ask it to be gaged but going through the south tank I

didn't see anything that needed gaged at the time.

1	MR. ROTH-ROFFY: What is your criteria for					
2	making that determination?					
3	MS. D'ADDIECO: Visual examination.					
4	MR. ROTH-ROFFY: Fifty percent deterioration?					
5	MS. D'ADDIECO: If I notice any signs of					
6	pitting, corrosion, accelerated corrosion, depending on					
7	boundaries as well, if they're Tiheated (phonetic)					
8	boundaries obviously you're going to have more					
9	corrosion in the ballast tank but going through these					
10	spaces you're looking at any breakdown in coating					
11	you're going to look for					
12	MR. ROTH-ROFFY: Take your time.					
13	MS. D'ADDIECO: I didn't see any pitting. I					
L4	didn't see any corrosion. I didn't see my grooving at					
15	the time. If I see stuff like that then I'll go					
16	forward.					
L7	MR. ROTH-ROFFY: Zero percent corrosion?					
18	MS. D'ADDIECO: I wouldn't say zero percent					
19	corrosion.					
20	MR. ROTH-ROFFY: I'm just trying to see what					
21	is the criteria for, you know, depth of pits, extent of					
22	corrosion or, I mean, you just looked at it and it's					
23	your own personal subjective opinion of a condition of					
24	a structure?					
25	MS. D'ADDIECO: I'd have to say yes. I mean,					
ı						

I'm the one that is visually examining ballast tank. 1 2 In my opinion going through the ballast tanks I didn't 3 see a need to -- I didn't see a need to gage them. didn't see --4 5 MR. ROTH-ROFFY: So, another ABS surveyor 6 would come behind you, would he have a different 7 opinion of the condition of the steel? 8 MS. D'ADDIECO: Every surveyor will have a 9 different opinion of the steel. 10 MR. ROTH-ROFFY: Perhaps ask for 11 clarification from one of the managers there. 12 MR. O'DONNELL: Louis O'Donnell, ABS. 13 Tom, to answer your question are you 14 specifically requesting like what wastage allowances we 15 have? 16 MR. ROTH-ROFFY: Whatever are the subjective 17 I'm sorry to interrupt you, go ahead. criteria. 18 MR. O'DONNELL: Like wastage allowances we'd 19 be looking for or criteria to engage the surveyor to 20 request gagings or thickness measurements? 21 MR. ROTH-ROFFY: Exactly. 22 MR. O'DONNELL: Okay. Jamie did hit on a lot 23 of the criteria. If we saw things like grooving at weld connections between let's say the toe of the weld 24 25 and the end of the piece of plate, heavy accelerated

corrosion. Corrosion maybe, you know, big chunks of scale falling off, things like that. A deep pitting, then that wouldbe -- that would trigger, you know, -- would trigger the process to requesting thickness measurements, possible gaging pits, you know. Is it localized? Is it all over the tank? It is it one small area, the size of the pits? It's very -- it's a very loaded question to answer depending on seeing the actual visual condition of the piece of structure in front of you. And, you know, if you have it in a very small area or whether it's spread out over the titania, almost going back like looking at coatings.

so, for example, take the wallpaper on this wall. If we had one little spot the size of a dime where the wallpaper was off or like this peel over here, I'd look at this tank and say, this coating is still in good condition. However, if it was coming off in big sheets and there was a lot of bleeding and rusting we could go from good, to fair to poor very quickly. And we do have criteria which we could spend hours discussing here and the surveyors are trained for visual indicators and they have this reference material available to them to make those gradings of steel condition, coating condition and that's part of their required training they go through before they get

certified for those survey hypothesis. 1 2 MR. ROTH-ROFFY: Okay. I'm going to accept 3 that answer. Thank you. MR. MILLAR: Mike Millar, ABS. 4 5 Maybe a point of clarification. We don't 6 actually have a grading system for the steel. We do 7 There is no grading system for the steel, only for coating. We have limits on what we are permitted 8 9 to accept that's either it's wasted or it's substantial 10 corrosion or it's -- there's material above those 11 minimums. 12 Brian, it's your show. 13 MR. ROTH-ROFFY: I appreciate the clarification. 14 Thank you. 15 UNIDENTIFIED PERSON: Follow up question to 16 **\*\*** (4:04:38). 17 When would gaging be required in these 18 ballast tanks, if ever? 19 MS. D'ADDIECO: Special survey. 20 UNIDENTIFIED PERSON: Okay. So, it's a 21 special survey you gage the tank and engage the vessel? 22 And you would have had that report available to you to 23 know if there were any areas of concern or that would 24 have been addressed in a special survey? 25 MS. D'ADDIECO: Yes.

1	UNIDENTIFIED PERSON: Of the thickness of the					
2	steel that's already been predeterined. Thank you.					
3	MR. FISKER-ANDERSEN: Jim Fisker-Andersen					
4	from TOTE. Just a technical point to add the proper					
5	fresh water that was in that tank is that your					
6	understanding ** (4:05:21)?					
7	MS. D'ADDIECO: ** (4:05:23).					
8	MR. FISKER-ANDERSEN: Yes, I believe that's					
9	the case.					
LO	UNIDENTIFIED PERSON: Buffered fresh water?					
11	MR. FISKER-ANDERSEN: Silt. Stop corrosion.					
12	MR. O'DONNELL: Louis O'Donnell from ABS.					
13	Just for clarification, Jim, buffered or					
L <b>4</b>	treated fresh water?					
15	MR. FISKER-ANDERSEN: Treated fresh water.					
L6	MR. O'DONNELL: Thank you.					
L7	MR. YOUNG: Okay. Anyone else with questions					
18	on that survey of the tank?					
19	with the Coast					
20	Guard. Just a quick one.					
21	You mentioned two frames detached. Can you					
22	maybe describe what's normal on the vessel, what's					
23	acceptable as far as is that a common thing that you					
24	see on vessels? And when would it lead you to be					
25	concerned?					

MS. D'ADDIECO: If the fracture was in the 1 2 frame and it didn't -- if the fracture was in the 3 frame, if it was any water tight, water type boundaries I would be concerned. They would have done temporary 4 5 if it was in the frame, if it had the risk of 6 propagating. Anything like that we would made 7 temporary repairs at the time. Repeat the question one more time. 8 9 I don't remember. 10 MS. D'ADDIECO: I'm sorry. 11 Is it common to see or what 12 would cause you concern? 13 MS. D'ADDIECO: We can see the detached We can see fractures in frames. We've seen 14 frames. 15 fractures in bulkheads due to misalignment. With the 16 age of the vessel, I didn't think it was misalignment. 17 It was just the frame connection to the tank top. 18 There's nothing that went into the tank top that would 19 lead me to believe that there was another issue with 20 it. 21 It didn't cause you concern to 22 see where --23 MS. D'ADDIECO: No, no. 24 Okay. 25 MS. D'ADDIECO: If it did I probably would

have made repairs at the time. 1 2 MR. O'DONNELL: Excuse me, Louis O'Donnell, 3 ABS. Just to correct the record. Sea worthiness 4 5 is not a terminology that surveyors are allowed to use. 6 We don't use that word. 7 Okay. MR. O'DONNELL: It either meets in the 8 intended class or it does not. That's one of the 9 10 things they're taught from day one that that's not a 11 word we use. 12 MR. O'DONNELL: Okay. 13 MR. YOUNG: Brian Young with the NTSB. Do you know what's above this tank which --14 15 was there another tank above it or a cargo deck or --16 MS. D'ADDIECO: There's a cargo area above 17 There might be a wing tank. I can't remember. 18 MR. YOUNG: Okay. Any other questions on 19 this survey? I think we can move along to the next one unless you have anything else to add. 20 21 MS. D'ADDIECO: No. All right. 22 The next one was an attendance on March 23 10th, 2015. 24 MR. YOUNG: And what was the purpose of this 25 survey?

MS. D'ADDIECO: The vessel's chief engineer 1 2 reported that they had overshooting of the rudder by 3 three to four degrees in both directions. This was the starboard steering gear pump. While in follow up mode 4 5 the rudder was overshooting its target by three to four 6 degrees in both directions. 7 They had made repairs. The feedback unit was serviced at the time and found with a faulty 8 9 potentiometer. The potentiometer was replaced to it's 10 original steering and was calibrated by a service 11 technician. It was operationally tested and considered 12 satisfactory at this time. 13 MR. YOUNG: All right. And you witnessed the 14 operation? 15 MS. D'ADDIECO: Witnessed the operation of 16 the steering, both pumps, as well as at each location 17 so we did the emergency steering. We get up on the 18 Any location that they're able to have 19 steering from they were tested. MR. YOUNG: And if you can recall did you see 20 21 any problems with the system whatsoever or did it seem 22 to be operating normally? 23 MS. D'ADDIECO: At the time of the survey the 24 system was satisfactory. 25 MR. YOUNG: Thank you.

UNIDENTIFIED PERSON: No further questions. 1 2 UNIDENTIFIED PERSON: No questions. 3 MR. YOUNG: Okay. MS. D'ADDIECO: The next one was 14th of 4 5 April 2015. And this was the overhead in the \*\* 6 (4:10:04) space was found with holes and wastage on the 7 forward side of the stairs. They did a deck insert near the boatman's door's hatch, utilizing an insert of 8 9 30 inches by 15 inches by 5/16 inch thick plate. The 10 repair was examined and considered satisfactory. 11 repair was carried out in accordance with approved 12 welding \*\* (4:10:26) welders and approved consumer 13 rules. 14 MR. YOUNG: This is Brian Young with the 15 NTSB. 16 How would this issue have been brought to 17 your attention? 18 MS. D'ADDIECO: The vessel's post engineer 19 had contacted indicating that they had holes and wastage in this area and that they were going to make 20 21 repairs. We intended to lay out the -- agree on the dimensions of the insert and then they had hired one of 22 23 the local companies to do the repairs. And that was 30 24 by 17 by 5/16.

MR. YOUNG: And that was the overhead of the

1	forth peak tank				
2	MS. D'ADDIECO: No, the four peak base in way				
3	of the boatman's door patch.				
4	MR. YOUNG: And do you recall what deck that				
5	was on?				
6	MS. D'ADDIECO: No, but if you have a drawing				
7	I can probably point it out.				
8	MR. YOUNG: Okay. Thank you. That's all I				
9	got.				
10	UNIDENTIFIED PERSON: No further questions.				
11	with the Coast				
12	Guard with a very minor one. When you would have met				
13	to agree on the size of the repair that was at a prior				
14	time, not this inspection or was it all done				
15	MS. D'ADDIECO: It was at this inspection.				
16	So, you agree on it, they				
17	repair it and then the inspector returns. All that				
18	happened.				
19	MS. D'ADDIECO: Inspected the set up and then				
20	they go back and they look at the permanent repairs,				
21	the final take a visual examination of the logs that				
22	they're done and make I'm satisfied with the way they				
23	look.				
24	Thank you.				
25	UNIDENTIFIED PERSON: No questions.				

UNIDENTIFIED PERSON: No questions. 1 2 UNIDENTIFIED PERSON: No questions. 3 MR. YOUNG: One last question. Brian Young. 4 Were there any tests done on this for --5 MS. D'ADDIECO: No, and this is a conversation that I had with the port engineer at the 6 7 same time because we were trying to determine if we were going to do testing on it and it was not the tight 8 9 deck. So, it was not -- we didn't do any touching on 10 it because it was not tight. 11 MR. YOUNG: Any other questions about that 12 repair? Thank you. 13 MS. D'ADDIECO: The next one was 8 September 14 2015. And this was a repair on the boiler. 15 I am missing something. 16 There was a port boiler, the economizer had 17 leaking tubes. We were contacted about the repair to 18 go out and witness the repair and test it. 19 reported by the port engineer seen economized tubes in 20 the port boiler were leaking. The seven tubes were 21 refit to remove a complete path of the leaking tubes so 22 we took out one path of the economizer and connected it

over. And it was examined and tested and considered

satisfactory. The repairs were carried out in

accordance with approved welding procedures and

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1	approved consumables.					
2	MR. YOUNG: Do you know who actually did the					
3	repairs?					
4	MS. D'ADDIECO: It was reported to be Tax					
5	Machine Repair. Jacksonville Machine Repair.					
6	MR. YOUNG: And would it be J-A-C-K'-S or					
7	MS. D'ADDIECO: Jacksonville.					
8	MR. FISKER-ANDERSEN: Jacksonville Machine					
9	Repair, I apologize. Jim Fisker-Andersen.					
10	MR. YOUNG: And the welders that performed it					
11	they obviously are ABS certified. Are there any					
12	special certifications to work on the boiler? Any					
13	certain welding procedures required?					
14	MS. D'ADDIECO: Not that I know of.					
15	MR. YOUNG: How was the how were these					
16	repairs tested?					
17	MS. D'ADDIECO: They were tested under steam.					
18	They were tested at 800 psi steam.					
19	MR. YOUNG: And you witnessed these tests?					
20	MS. D'ADDIECO: Yes.					
21	MR. YOUNG: Okay. Go around the room?					
22	UNIDENTIFIED PERSON: No further questions.					
23	UNIDENTIFIED PERSON: No questions.					
24	UNIDENTIFIED PERSON: No questions.					
25	UNIDENTIFIED PERSON: No questions.					

1	UNIDENTIFIED PERSON: No questions.				
2	MR. ROTH-ROFFY: Tom Roth-Roffy of the NTSB.				
3	You said they were tested under steam.				
4	MS. D'ADDIECO: Yes. The repairs were done				
5	prior to our attendance. The repairs were done two				
6	weeks before our attendance. The vessel had transited				
7	with the repair to Puerto Rico and back. When they got				
8	back they contacted us to examine the repairs that were				
9	done and tested. Since the vessel was under steam at				
LO	the time we tested it to 800 psi.				
11	MR. ROTH-ROFFY: So, did you back flow steam				
12	through the economizer to do that? How did you I'm				
13	not understanding how you test that under steam. Are				
L4	you saying under steaming, operational test?				
15	MR. ROTH-ROFFY:				
16	MS. D'ADDIECO: It was an operational test.				
L7	MR. ROTH-ROFFY: Okay. So, it's water in the				
18	tubes, is that correct? Economizer?				
19	MS. D'ADDIECO: Should be, right?				
20	UNIDENTIFIED PERSON: It's supposed to be				
21	water.				
22	MS. D'ADDIECO: Water.				
23	MR. ROTH-ROFFY: And what's the acceptance				
24	criteria for the number of passes that can be **				
25	(4:16:19) in a steam boiler ** (4:16:21)?				

1	MS. D'ADDIECO: I do not know that right now.					
2	MR. ROTH-ROFFY: At the time when you					
3	approved the repair did you know that?					
4	MS. D'ADDIECO: No.					
5	MR. ROTH-ROFFY: And was it unusual for them					
6	to make several trips with an unapproved repair?					
7	MS. D'ADDIECO: No.					
8	MR. ROTH-ROFFY: Typical?					
9	MS. D'ADDIECO: Well, no, not typical. I					
10	mean, we get called out when they're doing the repair.					
11	I don't know it wasn't we weren't contacted before.					
12	And I wouldn't the job was assigned to me by the					
13	surveyor in charge and when he contacted me the repairs					
14	were already done.					
15	When I've been requested to attend a vessel					
16	we would agree on the repairs prior to them conducting					
17	them which in the deck insert they did that.					
18	MR. ROTH-ROFFY: Okay. So, they had already					
19	identified a failure and gotten approval for the repair					
20	a certain way and you were just coming back to					
21	MS. D'ADDIECO: I would not know if they had					
22	gotten approval.					
23	MR. ROTH-ROFFY: Do you know that was the					
ļ						
24	case?					

witness the repair. 1 2 MR. ROTH-ROFFY: Okay. Thank you. 3 all I have. MR. YOUNG: This is Brian Young with the 4 5 Do you know where the repairs were carried out, NTSB. 6 whether it was Puerto Rico, Jacksonville or at sea? 7 MS. D'ADDIECO: I do not where the repairs 8 were carried out. MR. YOUNG: And I have never tested a boiler 9 10 for economizer tubes after repairs. But what are some 11 of the things you would look for to tell if these 12 repairs are properly executed or have failed? 13 would you know that these repairs were effective? 14 MS. D'ADDIECO: Looking at the visual 15 examination of the welds for any discontinuity in the 16 In addition for the testing that we did there 17 was no leaking coming from the welds. 18 MR. YOUNG: Where were you able to see the 19 welds? 20 MS. D'ADDIECO: So, I got on board and I met 21 the chief engineer at the gangway. We went down 22 through the house, one level and went up through the 23 top part of the engine room between the boiler. They

had removed the panel on the boiler right where these

repairs were done. They were able to take the panels

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off. And then they all had a pressure gage right 1 2 there at the same place and we looked at multiple 3 pressure gages. They didn't have a calibration on this They told me that it had just come out of the 4 one. 5 So, I decided to take a look at other pressure box. 6 gages to verify the pressure. The other pressure we 7 went down towards the control board and witnessed them there and then we went back up the same way and left 8 9 the ship the same way. 10 MR. YOUNG: Any other questions on this 11 boiler economizer tube repair test? 12 Was that the last time you were on the ship 13 or went further? 14

MS. D'ADDIECO: That was the last time I was on board.

MR. YOUNG: While you were aboard the ship you obviously interacted with the chief engineer. Did you sense any concern or any problems or were there any discussions of any other issues about the power plant or any concern the chief had about the status of the engine?

MS. D'ADDIECO: No.

MR. YOUNG: While you were aboard the ship did you notice anything out of the ordinary if anything was not operating properly or any machinery that wasn't

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1 up to par? 2 MS. D'ADDIECO: The time in the engine room 3 was just from the hatch by the -- on top of the boiler to the control board in the back the same way. 4 5 MR. YOUNG: Okay. 6 MS. D'ADDIECO: I wasn't able to take a look 7 around the engine room thorough. That wasn't part of 8 our survey at the time. We were only approached to 9 look at the repairs. They did not indicate any issues with machinery at the time. 10 11 MR. YOUNG: Okay. Anybody else? 12 UNIDENTIFIED PERSON: Just general questions 13 or--14 MR. YOUNG: yes, just on any last impressions 15 of the ship on the 8th of September and then we'll open 16 it up for the last round. 17 Okay. And then just for a follow up on --18 were there any further surveys or visits to the ship 19 that we haven't discussed? 20 MS. D'ADDIECO: There were not any others. 21 There were further surveys or that we did not discuss. 22 I did not bring up those that I had reissued certain 23 certificates. 24 MR. YOUNG: Okay. 25 MS. D'ADDIECO: Just for normal housekeeping.

For ABS we go on board and we look at the (4:21:27) 1 2 but the certificates all were there. If we're up on 3 the bridge and I believe it was during the steering certificates that needed to be corrected. 4 5 MR. YOUNG: Okay. 6 MS. D'ADDIECO: And there was one other comment that i closed out which was for the access. 7 They had two of them listed. For the vessel to go with 8 9 an access based on the new IMO regulations that were 10 coming into effect. And I closed one of those out 11 because it wasn't applicable successful based on the 12 gross tonnage. MR. YOUNG: And we'll start with just general 13 14 In your dealing with the crew and the questions. 15 engine department on this ship did you feel that the 16 crew was competent and well trained and able to handle 17 the machinery properly? Did you have any issues with 18 any of the engineers that you dealt with? 19 MS. D'ADDIECO: I only dealt with the chief 20 engineer. 21 MR. YOUNG: Okay. 22 MS. D'ADDIECO: He didn't indicate any -- he 23 didn't indicate any issues and I didn't -- he seemed

MR. YOUNG: Okay. And were there ever any

confident in the system.

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complaints about the status of his ship or what he 1 2 thought his --3 MS. D'ADDIECO: No complaints brought to my attention while I was on board on any attendance. 4 5 MR. YOUNG: All right. Thank you. MR. YOUNG: Lou? 6 7 MR. O'DONNELL: No further questions? MR. MILLAR: Mike Millar. Just a general 8 9 observation of the crew on the ship and the \*\* 10 (4:22:46). In all your visits and you spent a lot of 11 time on the ship interacting with the crew \*\* 12 (4:22:57) the safety culture of the ship and the crew 13 were specific? MS. D'ADDIECO: While on board the crew 14 15 didn't indicate anything to be concerned about. They 16 didn't bring up any sort of issues that they had. 17 while I was on board I mean I can only really comment on the survey at the time what I looked at. I didn't 18 19 see -- obviously, they showed me the reports. I didn't 20 see anything that needed to dealt with that I would 21 class or statutory requirement. 22 MR. MILLAR: Thank you. 23 UNIDENTIFIED PERSON: No questions. 24 MR. ROTH-ROFFY: Tom Roth-Roffy, NTSB. I'd 25 like to go back to that other survey item that you

discussed, in particular, the exits. 1 2 MS. D'ADDIECO: Yes. 3 MR. ROTH-ROFFY: Could you give me more detail about what that was and how you closed it out? 4 5 MS. D'ADDIECO: So, the survey status for the 6 vessel indicated two additional requirements for 7 statutory for exits. They were identical. The only thing that was different between the two comments was 8 9 the gross tonnage and implementation date to have an 10 access on board. So, while closing this out it was not 11 up on the bridge. But because they had duplicate 12 comments I closed the one that was not applicable based 13 on the gross tonnage. 14 MR. ROTH-ROFFY: It had an incorrect 15 prototype? MS. D'ADDIECO: Our system indicated both. 16 17 So, if you look at the status there is still an active 18 comment on there which makes reference to the correct 19 gross tonnage. Does that make sense? 20 MR. ROTH-ROFFY: Yes. So, there's a current 21 requirement --22 MS. D'ADDIECO: There's a current additional requirement still tied to the vessel for installation 23 24 of an active or gross tonnage. I believe it's between 25 20,000 gross tons and 50,000 gross tons.

1	MR. ROTH-ROFFY: And do you have a date on				
2	that?				
3	MS. D'ADDIECO: I'd have to look at the				
4	status to give you the date. It's an IMO requirement				
5	too. It's not a date that we can just make up. It's -				
6	-				
7	MR. ROTH-ROFFY: I understand. Okay. Thank				
8	you. Nothing further.				
9	MR. YOUNG: Anything,				
10	MR. MILLAR: No, sir.				
11	MR. YOUNG: Jim?				
12	MR. FISKER-ANDERSEN: No.				
13	MR. YOUNG: Brian Young with the NTSB. One				
14	last question on my part.				
15	Have you ever sailed or worked on a steam				
16	ship in your cadet or officer career?				
17	MS. D'ADDIECO: Yes. The training ship at				
18	Massachusetts Maritime Academy used to be known as the				
19	TS Enterprises, now the Kennedy. I had to do three sea				
20	terms on that.				
21	MR. YOUNG: All steam?				
22	MS. D'ADDIECO: All steam. And one sea term				
23	I did with Calmaritime (phonetic) on the Golden Bear				
24	which was diesel.				
25	MR. YOUNG: Thank you. Anybody else?				

1	MS. D'ADDIECO: I should add that I also had			
2	training for commercial boilers for the Facilities			
3	Environmental Engineering Degree.			
4	MR. YOUNG: And who was that through?			
5	MS. D'ADDIECO: Mass Maritime.			
6	MR. YOUNG: Mass Maritime. Okay.			
7	Anybody else? Okay.			
8	And we always close out our interviews with			
9	is there any additional information you have for us,			
10	especially with this incident that we're investigating,			
11	if you had anything to add or if you had any questions			
12	for us?			
13	MS. D'ADDIECO: I have nothing to add and no			
14	questions.			
15	MR. YOUNG: Okay.			
16	MS. D'ADDIECO: No questions for you.			
17	MR. YOUNG: Okay. You have our card and			
18	please if you can, if you hear anything just let us			
19	know because we're very interested to get to the bottom			
20	of this.			
21	So, the time is now 1510 and that will			
22	conclude the interview and stop the recording.			
23	Thank you again for your time.			
24	(Whereupon, the above-entitled matter went			
25	off the record at 3:10 p.m.)			

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## CERTIFICATE

MATTER: El Faro Incident

Accident No. DCA16MM001

Interview of Jaime D'Addieco

Jacksonville, FL

DATE: 10-10-15

I hereby certify that the attached transcription of page 1 to 42 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

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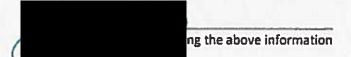
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22	8	boatman's door's	bosun's deck
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